DELAWARE STATE MEDICAL JOURNAL

Issued Monthly Under the Supervision of the Publication Committee Owned and Published by the Medical Society of Delaware

Volume XIII Number 8

AUGUST, 1941

Per Year \$2.00 Per Copy 20c

REGISTRATION HEADACHES

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Very few people realize the difficulties encountered and problems arising in the Bureau of Vital Statistics. Clerks in this office must be persons who recognize the fact that a birth certificate is not just a piece of paper furnishing evidence that a person was born on a certain date, at a certain place, or for that matter was even born. The birth certificate is a rather human document—it may be kind or cruel. The only redeeming feature is that it cannot be kind or cruel at will.

REGISTRATION PROBLEMS

Fred Jones was employed in the aircraft industry in California and his employers notified him that he must furnish them with a certified copy of his birth record. This was a difficult assignment because he had lived with foster parents in Delaware until the past four years, when he had gone to California in search of work.

By corresponding with his foster parents he requested that they secure a certificate for him. A search of our records revealed that the birth had been registered, but the physician had failed to answer "yes" or "no" to the question of legitimacy. As the birth occurred at home and the physician who attended was no longer living, it was necessary to correspond with the foster parents to learn what they knew about the circumstances surrounding the birth. The reply stated that they had known the mother of the boyand the child was illegitimate. Together with this information was the fact that their foster son did not know that he was an illegitimate, but had always been led to believe that his foster parents were his true parents. There followed a touching appeal from the foster parents that this information not be divulged to him.

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It is possible in some cases to substitute a certificate stating that the birth had been registered, but in this case the certificate was to be used to establish not only the date of birth, but the place of birth and the nationality of the person and parents.

Obviously in this case the standard certified copy must be used, and the boy learned for the first time that his was an illegitimate birth. This knowledge he could keep to himself under certain circumstances, but now it might become the property of anyone.

Further, our law provides that a photostatic copy must be furnished upon request. In such an event there is no way of concealing any of the information appearing on the face of the certificate.

Thus it is seen that there are many confidences which may be betrayed by the birth certificate. Moreover, there are many misuses. A typical example is the man who a few years ago registered his son's birth a year in advance of his true age in order that the son might get his driver's license at 15 rather than 16. In 1940 he came back to have a correction made, stating his son's birth occurred one year later than the date appearing on the certificate. He did this in order that his son need not register for the Selective Service Act. The statements providing evidence were made under oath, so little could be done about it by the State Registrar.

The Bureau of Vital Statistics is the officially designated repository for registrations of births, deaths, marriages and divorces. The two former records are valuable in public health in order to determine the trend of mortality rates. Marriage and divorce records are only of minor public health value.

Many of the difficulties arising in the registration of births are the result of the inaccuracy of the information supplied by the physician or midwife, particularly in the spelling of names. People are, curiously enough, particular about the way their

names are spelled and pronounced. Legibility is also important—an "e" may be mistaken for an "a," "i," or "l," depending upon the writing characteristics of the person filling in the record. Far too high a proportion of certificates are returned for correction each month. The mistakes are difficult to avoid, as the clerk must compare a difficult letter with every letter similar in appearance written on the face of the certificate, and then decide—rightly or wrongly—just what the questionable letter is.

Under our state law the undertaker is responsible for the completion of the death certificate, except that portion stating the cause of death. Because of the fact that a burial permit must be obtained before interment, and the death certificate is prerequisite to the burial permit, it is obvious that delay in filing of death certificates is no great problem.

Under the Social Security Act it is essential that families of a deceased person entitled to Social Security benefits receive their benefits as soon as possible after the death, presumably that they be able to liquidate indebtedness caused by the illness of the deceased or to take care of the immediate loss of income due to the death of a wage earner. In most cases, the undertaker places the Social Security number on the certificate. However, in many instances where the Social Security number is not given, it is the duty of the Bureau of Vital Statistics, if the occupation of the deceased appears to warrant it, to make out a "proof of death" form to cover the possibility that the undertaker could not obtain or neglected to obtain the Social Security number. The judgment of the vital statistics clerk in such a case is based entirely upon the stated occupation of the deceased. Inasmuch as many occupations are not included for benefits in the Social Security Act, this becomes important. For example, if the occupation of the deceased is given as "laborer," without stating the industry in which he was employed, a provisional "proof of death" is made out and investigation is completed by the Federal Social Security Agency. The delay in possible benefits incurred by this assumption -necessary because of lack of informationis obvious and may work unnecessary hardship upon the family of the deceased. It must be remembered that "laborers" employed in agriculture and by state and municipal governments are not eligible for Social Security benefits. Hence, all laborers, where industry and Social Security numbers are unstated, are given the benefit of the doubt and are assumed to be eligible for Social Security benefits.

The cause of death should be stated in simple terms. Clerks in the bureau are laymen, and the cause of death stated in highly technical terms causes delay in final filing of the certificates. In order that mortality rates may be compared locally, nationally and internationally, an international agreement exists whereby all deaths are coded and classified according to the precedence one disease takes over another. Coding is simple when a single cause of death is stated. Where more than one disease plays a part in causing death, the problem of coding becomes more complex. It is not uncommon to receive a certificate stating that the cause of death of a child is pneumonia, with measles listed as a contributing cause. In coding, however, the death is credited to measles rather than pneumonia.

During the past 3 years registration of marriages has increased over 300%. This is almost entirely due to the fact that it is easier to be married in Delaware than in surrounding states. Premarital examinations are necessary in New York, New Jersey and Pennsylvania. Maryland has placed certain legal obstacles to the ease with which marriages were previously performed. This marked increase in marriage registrations results in delays in filing by local registrars because of lack of personnel.

Delawares' law provides that each physician and midwife be paid the sum of 10e for each birth registered. Each ciergyman also receives the same sum for each marriage registered. Many clergymen perform only one, two or three marriages each. The Levy Courts, on order, pay to the State Registrar the total sum for all marriages and births registered for each county. The State Registrar in turn pays by check, each physician, midwife and clergyman. In many instances

this involves a cost of 3c in postage to forward a check amounting to 10c! If the problem ended here it would not be so very difficult, but many a letter is received stating underpayment, and a complete recheck for each individual claimant must be made. Frequently the claim is for underpayment of perhaps ten or twenty cents! Because of the frequency with which clergymen assume new charges, the item of postage is in many instances doubled and even trebled before the new address of the clergyman is obtained.

Many changes for the improvement of registration could be recommended, but at too great length. However, under present circumstances if those who complete registration certificates would remember that a person entirely unfamiliar with his handwriting must interpret each specimen of handwriting and exercise sufficient care so that difficulty of interpretation will be reduced to a minimum, clerks in the Bureau of Vital Statistics would be much, much happier. After all, they must assume the responsibility for mistakes on certificates they send out, regardless of the care exercised in the interpretation of illegible handwriting!

The writer well remembers the first birth certificate he filled out. There was no apparent reason for it, other than the fact that the law required such a procedure. possibly might be the importance attached to the occupation of the parents and the time spent at that occupation, to the birth of an infant? And the first death certificate! It also was a legal requirement and an adventure for me! While my recollection of all details is not clear, I would be willing to wager that in stating the cause of death I did it in such resounding medical terms as to confound Aesculapius, Hippocrates, and even my late mentors, who to me held no mean place in the galaxy of the illustrious. Having gone through years of medical study, I now admit that I was entirely incompetent to furnish proper and usable information relative to the beginning and end of a human life! My obvious conclusions, after several years of experience and observation, are that the apparent academic unimportant subject of proper completion of detail in birth and death documents should be an integral part of the medical curriculum. Moreover, state laws and regulations relative to public health in general should be included in examinations for state licensure.

As time mellows our memories, so occupation influences our viewpoint. I would state my viewpoint and share it gladly, urging that procrastination bow to promptness; complex and stilted terminology give way to simplicity and clarity; and finally, that accuracy and legibility of statement be a final goal. Utopia in the Bureau of Vital Statistics will then have been attained!

THE X-RAY EXAMINATION OF SELECTEES

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There were fourteen hundred selectees x-rayed at the Brandywine Sanatorium from November 13, 1940 to February 11, 1941; after this date the x-ray work was done at the Induction Center in Trenton, New Jersey.

These men were x-rayed in groups ranging from a few to as many as one hundred and sixty. The technique consisted of a flat chest film, 14 x 17 inches, taken at six foot distance, one-tenth of a second, two hundred milliamperes; the time required was approximately one minute per case.

Following the completion of the study on each group, the film and findings were forwarded to the Local Selective Service Board. If there was a questionable lesion on the film, the selectee reported to the Sanatorium for an additional set of stereoscopic films.

The draft boards arranged for transportation of the cases from Wilmington and New Castle to the Sanatorium for x-ray, while the Delaware Anti-Tuberculosis Society furnished the necessary transportation of the cases from the draft board in Middletown.

Of the fourteen hundred there were 373, or 26.6%, who showed some form of abnormality on the film; the majority being calcium deposits. The occasional film showing a general increase of trunk markings was classified as negative in our summary, but note was made to the local draft board of the findings in case they wished additional ex-

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aminations. The following is a tabulation of the 1400 cases x-rayed with the final interpretation of the film:

DATA ON SELECTEES

				Percen
Total Number X-Rayed			100	
Total Number Negative Pulmonary Findings: Hilus Findings:		1027	5-7	73.4
Stable (Calcium Deposits)	130		1-11	9.29
*Unstable Soft Nodules			1-700	0.14
Cabinate Dore records minim	_			0.22
		132		
Parenchyma Findings:				
Calcium Deposits			1-10	9.7
*Isolated Soft Nodules	5		1 - 280	0.36
Miliary (Healed)	3		1-467	0.21
Hematogenous (Healed)	2		1-700	0.14
Minimal Pulmonary Tuber- culosis				
Stable 13			1-108	0.93
*Unstable 10			1-140	0.71
_				
	23			
*Moderately Advanced Pul.				
Т. В4	1		1-1400	0.07
*Far Advanced Pul. T. B	3		1-467	0.21
Apical Pleural Thickening	4		1-350	0.28
Azygos Lobe	2		1-700	0.14
Non T. B. Basal Lesions	36		1-39	2.57
	_	215		
Extra-Pulmonary Findings:	_			
Underdeveloped First Rib	2		1-700	0.14
Cervical Ribs	5		1 - 280	0.36
Fused Ribs	4		1-350	0.28
Bifurcated Ribs	10		1-140	0.71
Deformed Distal End of Rib	1		1-1400	
Spinal Curvatures	4		1-350	0.28
	_	26		
		1400		
*Percent of Unstable Tubercule *Percent of Unstable Adult Ty				1.5%
referred of offstable Addit Ty	he I	ubeleu	ious	1 000

On reviewing the additional data on the 21 unstable pulmonary lesions, we find of the 14 unstable adult type lesions 5 have entered the sanatorium, 5 are under clinical observation, 2 have left the state, and the remain-

ing 2 have not been contacted.

Of the 9 unstable first infection type lesions, 5 are under clinical observation, 1 left the state and the other 3 have not been contacted.

Presumably the cases on whom we have no further data are under the care of their family physician.

TUBERCULOSIS DOES NOT RECOGNIZE APPEASEMENT

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The decreasing tuberculosis death rate throughout the United States has been ascribed to several factors, namely, public education, increased case finding facilities, more hospital beds for the tuberculous, better housing conditions, improved dietary standards and improvement in the economic status.

Delaware has shown an excellent record in this general downward trend as shown in the following chart:

One might be satisfied with this record and expect the downward trend to continue without renewed effort. It is believed though that the base has not been approached.

It is believed that if we used our full facilities now available, the morbidity and mortality could be markedly reduced. It is known that tuberculosis is an infectious disease and thereby communicable. Each case of tuberculosis results through the carelessness of another case. We have no known specific that can be used to rapidly break this vicious cycle, but our known available means if properly used, will slowly eradicate this disease.

In order to accomplish our purpose we must remember it is a common disease and be tuberculosis minded. Its diagnosis must be made early if we hope to save those afflicted and prevent the spread of disease. When a diagnosis of far advanced disease is made it usually means that patient has had sufficient time to infect others and at the best can only be given a guarded prognosis.

In most cases the patient sees first the family physician in whom they have faith. A responsibility is placed on the physician when the patient seeks their advice. A careful history must be taken and a thorough examination performed. It must be remembered that at its best physical diagnosis holds many pitfalls even for the trained. If there is any suspicion, x-ray study and repeated sputum examinations are indicated. In a suspected case one must not be satisfied with a negative report from a stained smear as final. It may be necessary to resort to examination of a 24 hour concentration specimen by smear, culture, and guinea pig inoculation. If the cough reflex is interfered with or swallowing of sputum is suspected, examination of a specimen obtained by gastric lavage must be resorted to. Tuberculosis respects no age, race or person. It turns up in any medical practice and sometimes when least suspected.

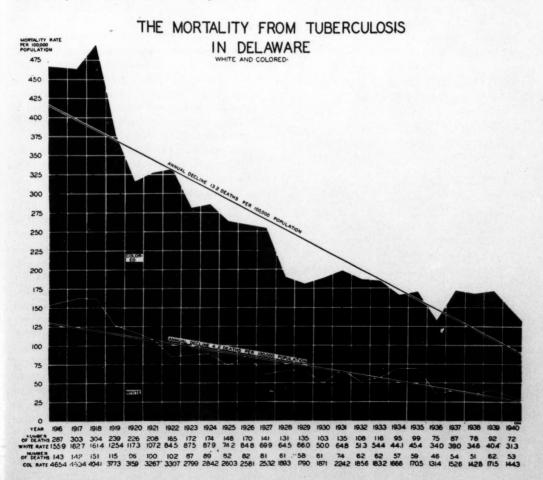
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An analysis of the 117 tuberculous admissions to Brandywine Sanatorium within the past fiscal year reveals that 70 cases, or 60%, were far advanced; 31 cases, or 26.4%, were moderately advanced; 13 cases, or 11%, were minimal; and that 3 or 2.5%, were of the childhood type. Many of the far advanced cases were terminal, in which nothing could be done. These percentages do not differ much from those of previous years.

Admission figures such as these can only mean we are not getting the full value of our present knowledge. Part of the blame can be placed on the patient and a part unfortunately on the physician.

Some of these errors may be traced to our early medical training. The author remembers too well some of his medical education in school, the hours wasted in the presentation of comparative rare cases and the little time devoted to the common diseases and ailments that present themselves to the practicing physician. Most of the cases of tuberculosis presented were of a far advanced type and not the early minimal lesion. Even the pictures in our medical text books are those of the emaciated and cachectic, when they should be those of an apparently healthy specimen. It is in these apparently perfect specimens that disease is so often found and causes so much destruction. Approximately 1% of the youths called up for the draft have shown evidence, on the x-ray, of unsuspected disease. Girls of this age group may even show a higher incidence than the boys.

When a large part of the patient population in a sanatorium is far advanced, that



institution serves chiefly as a segregation center of positive sputum cases and thus prevents further dissemination. Unfortunately though, modern treatment cannot be used to its fullest extent and the death rate is high. Poor end results and a high death rate are poor selling points in attempting to convince a patient they should be admitted to a sanatorium for treatment, or that they should not sign a release and leave a sanatorium before they are well. This is seen too frequently, the case being admitted or readmitted finally in a terminal stage. This vicious cycle can only be broken by providing sufficient beds to care for the ill, and passing necessary legislation that can force the positive sputum cases to undergo modern treatment and stop disseminating the disease.

Only through the cooperation of all, and ever being on the alert, can we stop this needless sacrifice of life, for tuberculosis does not recognize appearement.

VENEREAL DISEASE AND THE GENERAL PRACTITIONER

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Responsibility for the success or failure of the national program for the reduction of venereal disease rests equally on the private practitioner of medicine and the health officer—both will be censured if it fails. Public opinion and the public health authorities are aroused. Are the rank and file of the medical profession equally alert to their responsibilities and opportunities?

Indigent and semi-indigent patients receive what is usually good and adequate treatment in the various hospitals and public health clinics, but what about the pay patients who can afford private treatment? Those who can pay their own way are surely entitled to as good and as adequate treatment as those who cannot.

The physician who treats a case of venereal disease assumes a twofold obligation: to his patient, in giving him the best treatment available; and to the community, in protecting it from the danger of infection.

His first obligation requires him to make a definite diagnosis and to prepare the patient by instruction. He should ask himself the following:

- 1. Is the diagnosis of syphilis based on a single positive serologic report alone, or is it supported by clinical evidence or history?
- 2. If there is no clinical evidence or history has the serologic report been checked by a second specimen?
- 3. Has the patient been adequately questioned and examined to establish the duration of his infection and other factors which might complicate treatment?
- 4. Does chronic gonorrhea with slight or no visible discharge accompany syphilis, or does latent syphilis accompany gonorrhea?
- 5. Has the significance of previous treatment for syphilis been considered? Is the process truly arrested even though his serologic report is negative?

Instruction of the patient as to the nature of his disease is vitally important at the time of diagnosis. It is essential to secure his cooperation at this point.

- 1. Does he leave the office with an understanding in his own terms of his disease and what to expect of treatment, or is he confused or utterly ignorant regarding it?
- 2. Does he know how long treatment will be required and the financial burden he may expect?
- 3. Can he pay, or had he best be referred to a clinic in the beginning?
- 4. Has the utter lack of significance of a negative serologic report early in treatment as a criterion of cure of syphilis been explained?

The second obligation is no less important. The patient contracted his disease from another individual and may have infected others. Only by eliminating the carriers and sources of venereal disease may we expect to reduce the incidence.

The physician is therefore obligated to inquire after the source of the infection and if possible induce the patient to secure the examination of his own contacts. This is successful in public health clinic practice in Delaware; why not even more so in private practice? In this way no violation of the patient's confidence can possibly occur. If this is not possible, the physician has the choice of in-

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vestigating the contacts himself or of requesting the assistance of the health officer. If he elect to do the latter the identity of the patient need not be revealed, as only in rare cases is it of any value in the investigation. The person who investigates the contacts of clinic patients seldom knows and never reveals the source of the information.

Health authorities know that the sources of infection in the lowest strata of society are being reduced, but are very dubious about those catering to the somewhat higher brackets. Our observation leads us to the belief that the amateur prostitute is responsible for more venereal disease than her professional sister and is much harder to control. Without the wholehearted cooperation of the practicing physician the task is practically hopeless.

The health officer is not interested in the name of the private patient unless he discontinues treatment while infectious or potentially infectious and the physician cannot secure his cooperation. A patient who thus fails to cooperate violates the confidential physician-patient relationship. The physician who fails to do all he can to secure the continuance of treatment of such a patient is as derelict in his duty to the community as if he failed to isolate and to report a case of diphtheria.

If the delinquent patient is reported to the health officer he can in nearly all cases secure his return to treatment by personal follow-up or by mail, without disclosing his disease to his associates. More drastic action is extremely rare.

Clinic experience repeatedly demonstrates that the better class of clinic patient responds to explanation of his case and to a sympathetic attitude and that delinquency where the patient really understands that his cooperation is necessary is not a serious problem. Should this not also apply to private practice?

Finally, does the general practitioner do all in his power to insure that his patient has received adequate treatment?

1. Does he recognize the importance of giving a minimum of a year and preferably of eighteen months of continuous treatment with an arsphenamine and bismuth or mercury in early uncomplicated syphilis?

- 2. Does he make a thorough physical examination including, whenever possible, examination of the spinal fluid, before considering a case of syphilis as arrested?
- 3. Does he rely on the absence of discharge, negative smears, and of a negative 2-glass test alone as the criteria of cure in gonorrhea, or does he realize the importance of tests of cure: prostatic massage and examination of the expressed secretion, the passage of bougies, alcohol, and finally, protected sexual intercourse?
- 4. Does he realize that in patients treated with sulfanilamide, sulfapyridine and sulfathiazole the usual tests of cure may be negative and the patient still be an asymptomatic carrier, detectable only by cultural methods, because the morphologic characteristics of the gonococcus are altered by the drug? (Gonococcus culture work is now done by both the State Board of Health Laboratory at Dover, and the Wilmington Board of Health Laboratory).

The foregoing remarks are made in a spirit of constructive suggestion rather than in criticism. The general practitioner is the most important link in the chain we are all attempting to draw about the venereal disease problem, and the success or failure of the control program lies in his hands.

NOMENCLATURE FOR THE DIAGNOSIS OF SYPHILIS

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A standardized nomenclature, for the diagnosis of syphilis, has been adopted for use in the clinics conducted by the Delaware State Board of Health for the care of indigent individuals suffering from venereal infection. This diagnostic criterion has been modeled to conform, essentially, to the published recommendations of the United States Public Health Service.

An attempt has been made here to not only list the various diagnoses used but to indicate, as accurately as possible, the exact type of pathological entity embraced by each diagnostic term.

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PRIMARY SYPHILIS

A diagnosis of "primary syphilis" is made in those cases which evidence the initial or primary lesion (the chancre) of syphilitic infection and which do not present and have not previously shown any of the manifestations of "secondary syphilis," i. e., cutaneous eruption, condylomata lata, mucous patches, etc. A diagnosis is never based solely upon patient history and/or physical findings; if a lesion is present, which is clinically suspicious, relegation of the case to the category of "primary syphilis" is permissible only in the following instances:

- 1. Dark-field, positive and serologic test, negative.
- 2. Dark-field, positive and serologic test, positive.
- 3. Dark-field, negative and serologic test, positive.
- 4. Dark-field, omitted and serologic test, positive.

SECONDARY SYPHILIS

The diagnosis of "secondary syphilis" is allowable only for those cases in which one or more of the characteristic objective symptoms of the secondary stage are clinically demonstrable, i. e., cutaneous eruption, condylamata lata, mucous patches, etc. The diagnosis must be substantiated by either positive dark-field findings or positive blood serologic test, preferably, both.

In the event of complicating involvements of the eye (iritis or iridocyclitis, neurore-tinitis, optic neuritis, etc.) or central nervous system (asymptomatic neurosyphilis which has been detected by laboratory examination of the spinal fluid, subsequent to lumbar puncture, or symptomatic neurosyphilis which is discernible clinically), the precise pathological entity is appended to the existing diagnosis of "secondary syphilis" e. g., "secondary syphilis" complicated by syphilitic iritis."

INFECTIOUS MUCOCUTANEOUS RELAPSE

This diagnosis is permitted only in cases where a previous diagnosis of syphilis (treated or untreated) has been definitely established. One or more of the lesions, characteristic of this type of relapse, must be clinically demonstrable; these lesions include the monorecidive or chance redux, mucous

patches or erosions, moist papules, dry papules, condylomata, etc. "Infectious Mucocutaneous Relapse," of paramount importance in the dissemination of the disease, is an occurrence generally limited to the first two years of the infection.

Unqualified, the diagnosis of "relapse" may encompass several types of recurrences, i. e., mucocutaneous, ocular, visceral, osseous, serological, etc.

LATENT SYPHILIS

The concept of "latency" is maintained for those cases in which careful physical examination fails to disclose evidence of syphilis but where repeated sero-diagnostic tests remain consistently positive. In each case, an attempt is made to exclude those conditions and diseases which are known to produce positive serologic reactions in the absence of syphilitic infection, i. e., malignancy, infectious mononucleosis, malaria, leprosy, jaundice, acute febrile states, menstruation, after horse-serum injections, etc. "Latent" cases are diagnosed, according to the duration of the infection, as either "early latent" or "late latent." The duration of infection is based upon an evaluation of the patient history.

- 1. Early Latent Syphilis: Negative physical findings with repeatedly positive serodiagnostic tests. Duration of infection, less than four (4) years.
- 2. Late Latent Syphilis: Negative physical findings with repeatedly positive serodiagnostic tests. Duration of infection, four (4) years or more.

Diagnosis of "early latent" and "late latent syphilis," made without concomitant spinal fluid examinations, are considered as tentative only.

In instances, where painstaking interrogation fails to establish the duration of infection, the age of the patient is utilized in differentiating "latency." If the patient is less than 30 years of age, the case is designated as "early latent" and if the patient is 30 years of age or over, the case is designated as "late latent."

TERTIARY SYPHILIS

The adjective "tertiary" is employed to indicate cases which display the active lesions characteristic of late syphilis. Many

of these lesions may be accurately relegated, according to the anatomical structures involved, to one of four main categories with the following appropriate diagnoses:

1. Syphilis, tertiary, mucocutaneous: This diagnosis is utilized to indicate the presence of the late syphilid; including the nodular, non-ulcerative, nodulo-ulcerative and simple gummatous types.

Syphilis, tertiary, osseous: Diagnosis is used to show presence of syphilitic periostitis, bursitis, osteomyelitis, arthritis, osteoarthritis and synovitis.

3. Syphilis, tertiary, ocular: This diagnosis is used to indicate all late syphilitic eye involvements; including iritis, uveitis, kerato-iritis and choroiditis. Optic atrophy is excluded.

4. Syphilis, tertiary, visceral: Late syphilitic involvement of the liver, spleen, stomach and other viscera warrants the use of this diagnosis. The cardiovascular system is excluded.

5. Syphilis, tertiary (type specified): Reserved for involvements, in late syphilis, which do not fall within the scope of diagnoses 1, 2, 3 and 4 or any of those following.

CARDIOVASCULAR SYPHILIS

Lesions of the cardiovascular system (heart and great vessels) are recognized, generally, as manifestations of late syphilis. However, for purposes of brevity and practicality, the adjective "tertiary" is commonly omitted from the formal diagnosis. The comprehensive pathological entity of "cardiovascular syphilis" is always qualified by one or more of the following diagnoses:

1. Aortitis, uncomplicated: This diagnosis indicates those cases which evince signs and symptoms of aortic involvement uncomplicated by aneurysm (saccular) or insufficiency of the aortic valve.

2. Aortic Regurgitation (aortic insufficiency): The diagnosis is usually supplemented as to the absence or presence of cardiac decompensation e. g., "aortic regurgitation, without cardiac decompensation."

3. Aneurysm (artery involved is specified): This diagnosis is made only where saccular dilitation is present; it is not used in simple fusiform dilitation.

4. Cardiovacular Syhpilis (type speci-

fied): Reserved for those involvements which do not fall within the scope of diagnoses 1, 2 and 3.

All cases evidencing signs and/or symptoms of "cardiovascular syphilis" are subjected to fluoroscopic or x-ray examination, as facilities permit.

NEUROSYPHILIS

As involvement of the central nervous system is observed in cases of both early and late syphilis, the presence of "neurosyphilis" is always considered as a possibility in the primary (sero-negative and sero-positive) secondary and tertiary stages of the infection.

1. Asymptomatic: The diagnosis "neuro-syphilis, asymptomatic," is made in those cases, of both early and late syphilis, which present neither signs nor symptoms of central nervous system involvement but show spinal fluid abnormalities in routine lumbar puncture.

2. Acute syphilitic meningitis: This diagnosis is made in those cases which exhibit, early in the course of the disease, the usual signs and symptoms of low-grade cerebral meningitis. Cranial nerve paralyses may or may not be present; the condition known as "neurorecurrence," which may assume many of the clinical forms of early neurosyphilis, falls within the scope of the diagnosis.

3. Optic Atrophy: The diagnosis is utilized to indicate the presence of both primary and secondary types.

4. Tabes Dorsalis: The characterizing manifestations of the condition are indicated when making this diagnosis, e. g., "Neurosyphilis, tabes dorsalis characterized by ataxia." Psychotic manifestations must be absent.

5. Taboparesis: This diagnosis is made only in those cases which display psychiatric changes, typical of "paresis," together with clinically demonstrable signs indicative of injury to the posterior columns of the spinal cord.

6. Psychosis with syphilitic meningo-encephalitis (general paresis): Cases must exhibit psychic changes and neurological signs, substantiated by characteristic spinal fluid findings, in order to justify this diagnosis. Cases without psychic changes, but showing neurological signs and symptoms together with concomitant paretic type spinal fluids,

are diagnosed as "neurosyphilis, diffuse meningovascular, manifested by _____." Cases in which psychic changes and positive neurological signs and symptoms are absent, but which present paretic type spinal fluids, are diagnosed as "neurosyphilis, asymptomatic."

- 7. Psychosis with neurosyphilis: The diagnosis is used to indicate those cases of "neurosyphilis" in which psychosis is present but, in which, other findings do not justify a diagnosis of "paresis" or "taboparesis."
- 8. Diffuse meningovascular (manifestations specified): Reserved for cases of "neurosyphilis" which do not fall within the scope of diagnoses 1, 2, 3, 4, 5, 6 and 7.

Congenital Syphilis (Prenatal Syphilis)

The diagnosis, in the infant, of "congenital syphilis" (infection acquired in utero) is deferred until after the third month of life, unless clinical manifestations conclusively prove the presence of syphilitic infection. Subsequent to the third month of life, the results of repeated sero-diagnostic tests are acceptable as criteria indicative as to the presence or absence of the disease. Results of sero-diagnostic tests performed upon "cord blood" are not considered acceptable as the sole media for the establishment or exclusion of a diagnosis of "congenital syphilis."

In young children, the diagnosis is dependent upon repeated sero-diagnostic tests, history and clinical evidences of this type of infection. In older children and adults, the diagnosis is contingent upon the demonstration of the existence or previous existence of pathological changes, characteristic of "congenital syphilis," and the results of repeated sero-diagnostic tests.

SELECTEE EXAMINATIONS

ROWLAND D. HERDMAN, B. S.,*
Dover, Del.

From November 20, 1940 to April 30, 1941, 4,383 blood tests for the detection of syphilis were completed for the Selective Service Boards of Delaware. These blood

specimens were examined by the Kahn Presumptive test. The specimens which were positive or gave doubtful reactions by this test were then examined by Standard Kahn test, and those which gave indefinite reactions were examined by Kolmer Wassermann. Of the total number examined during this period 227 or 5.2% were positive. By race there were 3,570 specimens of blood from white men of which 54 or 1.5% were positive. There were 813 specimens of blood examined from negro men during this period. Of this number there were 172 or 21.3% positive.

During May, June and July of this year, there were several repeat samples of blood from draftees whose blood previously had been positive. Thus, the percentage of positives is much higher. During this period 2,321 specimens of blood were examined of which 173 or 7.4% were positive. By race, there were 1,789 specimens from white men, 32, or 1.8%, were positive; 523 specimens were received from negro men, of which 141, or 26.5%, were positive.

Over 1.5% of white and 21% of the negro selectees have been rejected by Local Boards because of syphilis. According to Dr. Hynson, Director of Communicable Disease Control, approximately 50% of the men found to be infected with syphilis were known by the Board of Health, and were receiving treatment at the clinics or from private physicians.

ENVIRONMENT SANITATION IN THE DEFENSE AREAS

RICHARD C. BECKETT, B. S.,*
Dover, Del.

Throughout the United States many communities have been inundated by the flow of troops, as well as those great numbers who also are to be found near the camps, be they relatives, friends, construction groups, or what not. A typical instance is the little town of Starke, Florida, population 1200, which is now being blanketed by an army training camp consisting of forty to sixty thousand army troops, with the mayor housing 7 of the construction workers in his home, and the president of the Chamber of Commerce, 5.

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^{*}State Sanitary Engineer, Delaware State Board of Health.

When a president of a Chamber of Commerce can see such conditions arrive, he should be in his seventh heaven, or wherever it is that successful presidents of Chambers of Commerce finally congregate.

The U.S. Public Health Service at the beginning of the emergency laid nation-wide plans to augment their present services throughout the nation, and also to make the relationship between the Public Health Service and the various states more tangible, by securing additional appropriations from Congress authorizing the employment of additional medical officers, sanitary engineers, and nurses. These groups have been combed from the civil service lists throughout the nation, brought to Washington at the National Institute of Health, put through a short course in public health training, and then distributed to the various states where serious conditions have arisen, due to the overnight growth of cantonments and various other army units.

Last fall the Public Health Service requested surveys of the areas within a 25-mile radius of important military areas or important industrial areas throughout the country. Due to the smallness of Delaware, if we draw a 25-mile radius from the three important centers in this state, namely, Fort Du Pont, Cape Henlopen, and the Du Pont nylon plant at Seaford, there would be very little of Delaware not covered by these three arcs. Just a small section embracing Millville, Williamsville, and Selbyville would be left out.

SURVEY OF INDUSTRIAL PLANTS

The first survey made was in the so-called Fort Du Pont area. A rather detailed survey was made of some 82 industrial plants, most of which were located within the city of Wilmington and selected after consultation with the Wilmington Chamber of Commerce. This organization has been interesting itself in a health program for industry for some time past. This survey indicated that many of the larger plants had already installed approved ventilation and heating systems, adequate safeguards for machinery, and were fairly well equipped with first-aid and medical services. Much of the latter equipment can be credited to the work done by the trade associations and by the Delaware Safety Council. The breakdown of the population groups of

the plants surveyed is shown in Table I. This table indicates that the majority of the plants are of medium size.

INDUSTRIAL SURVEY

By Por	ou	lation	Grou	ıp	s-			
1	-	100					37	plants
100	-	500					36	44
500	-	1000					6	44
1000	-	1500					2	"
1500	-	2000					1	**
							_	
		T	otal				82	plants

The type and number of plants surveyed and the number of employees show in detail the character of the industrial work in the state. The list is headed by steel, followed by leather, then textile, and then chemical. The detailed information is contained in Table II.

Type of	No. of	
Industry	Plants	Employees
Steel	. 20	5290
Leather	. 18	3574
Textile	. 15	3512
Chemical	. 9	2207
Rubber	. 1	550
Meat	. 1	350
Paper	. 5	332
Aircraft	. 1	250
Canning	. 1	200
Wood Preserv		162
Miscell	. 10	934
	-	-
	82	18,351

The industrial hazards in this state are not comparable to states where quarrying, mining, and other hazardous occupations occur frequently. There are, however, many plants where much improvement is needed in the collection of dust, exhaust fans, and similar equipment to reduce the air content below the irritating levels. Certain other plants also have rather irritating gases. In many of the plants where the management had taken pains to provide the employees with respirators and masks, the employees were quite careless and their attitude accordingly defeated the purpose of these devices.

An adequate industrial hygiene program in this state organized for the purpose of correcting these conditions would necessarily entail an enlargement of our laboratory facilities, the employment of a physician specially trained in this type of work, and an engineer who could devote most of his time to this type of work. At the present time these facilities are not available, and the only field left open is that of the usual sanitation of the factory, which pertains to water supplies, sewage facilities, and, where meals are prepared, the inspection of the restaurant facilities.

SURVEY OF TOWNS MADE

In the detailed survey that was made of this area, information was also obtained concerning the number of people in the various incorporated towns who were connected to the public water supply, those who were using their own private supplies, full data as to the number of homes connected to the sewer, those still using septic tanks or cesspools, and finally those using the outside privy, whether they be open-back or the pit type. An attempt was also made to get some idea of the housing shortage, particularly in the areas very close to the encampments.

At the same time, a survey was made of all the public eating places throughout the 25-mile district, including those both outside and inside the incorporated areas.

OTHER AREAS BEING SURVEYED

Similar reports are being prepared for the Lewes-Cape Henlopen area, and also the Seaford area.

As a result of the compilation of the data obtained in the survey in the Fort Du Pont area, the State Board of Health has been able to secure one of the trainees and he is now actively engaged in checking over the sanitary facilities in the Fort Du Pont area.

One other project connected with this survey and sponsored by the Public Health Service has been the mosquito control project within a 5-mile radius of Fort Du Pont. In this area, as contrasted with any other section of the state, the greatest proportion of the anophelene type of mosquito is found. The State Highway Department, under the supervision of Dr. L. A. Stearns, prepared such a project in cooperation with the W. P. A., and now this work is actively going on.

In summary, the survey has indicated to us the problem we have as far as industrial hygiene is concerned, and has further reinforced what we have already known, namely, the need of more sanitary inspectors in this whole area. It is to be hoped that the survey will result in the permanent employment of at least one or two additional inspectors. Later, as money becomes available and the personnel can be secured, a really active industrial hygiene program may be developed.

IMPRESSIONS GAINED FROM EXAMINA-TION OF PRE-SCHOOL CHILDREN

ERNEST F. SMITH, M. D.,*
Dover, Del.

In the spring of each year the children who are to begin school the following September are given a physical examination by the County Health Officer, with the assistance of local physicians, State Board of Health nurses, and dental hygienists.

The object in making the examinations is to find physical defects which may handicap the child in his school work, and get them corrected. Many defects are found of which those of teeth, tonsils, vision and nutrition are most common. In making these examinations certain impressions have been gained, some of which I would like to mention.

The first is that the average child is neglected in the period between infancy and school age. There are probably many reasons for this. The expectant mother receives prenatal care (that is, in the case of the more fortunate ones), the infant is taken more or less regularly to the physician, but when infancy has passed the child is left more or less on his own until the time comes for him to begin school. This is the first time he comes into competition with his fellows.

It seems a great shame for a child to begin this competitive life with handicaps which might have been removed beforehand. In the race, called "Life," every child is entitled to a fair start.

The child with defective vision, for instance, is seriously handicapped because he sees only a fractional part of what goes on around him.

(Concluded on page 172)

^{*}County Health Officer, Kent County.

EDITORIAL

DELAWARE STATE MEDICAL JOURNAL

by the author.

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Vol. XIII AUGUST, 1941 No. 8

COMMUNICABLE DISEASE—1940-41

The misleading nature of some statistics is demonstrated by the remarkable pneumonia case fatality rate of 150% for the last fiscal year-based on cases reported. 152 deaths were attributed to pneumonia, 61 fewer than the average for the previous 5year period.

No significant increase in pneumonia deaths appeared during or following the epidemic influenza outbreak. No estimate of the number of cases of influenza in the state could be made. Statistical sampling was attempted but found useless, as physicians differed greatly in their diagnoses. One man would report a large number of cases, another in the same locality, though just as

busy, was willing to diagnose only a few as epidemic influenza.

Delaware was visited by an epidemic of a mild form of scarlet fever which resulted in 471 reported cases, and an unknown but probably much larger number of very mild cases either not seen by a physician, or seen when no rash was visible, and therefore not diagnosed nor reported. This great number of carriers placed back in circulation while still infectious nullified all efforts at control and kept the epidemic going until it evidently exhausted the reservoir of susceptible individuals.

The long expected epidemic of measles arrived at last, with 4059 reported cases, the largest number on record in any one year. In addition there were probably as many or more unreported cases. These epidemics of measles and scarlet fever may not have been altogether mitigated evils, as many were immunized in a year when the general level of health was good, while relatively few were seriously ill.

We have had no smallpox for several years, but should not forget that it still exists, that about 10,000 cases are reported annually in the United States. Of late years a false sense of security has developed and many of us have become lax in urging early and repeated vaccination.

Twenty-three cases of typhoid, with one death, were reported during 1940. Of these, 10 came from the town of Laurel, which has had a relatively high rate for the past 10 years and is the only locality in the state where the rate has not been greatly reduced during that period. The 1940 outbreak was traced to a combination of carriers, open unsanitary privies, and flies. It is possible these same factors have been chiefly responsible for the high incidence in previous years. Local efforts are now being made to eliminate these conditions.

Only 17 cases of diphtheria, with no deaths, were reported during 1940. We cannot afford to ease up on immunization, however, and should be able to better 1940's record.

IMPRESSIONS GAINED FROM EXAMINA-TION OF PRE-SCHOOL CHILDREN

(Concluded from page 170)

A friend of mine told me recently about his little boy, who they realized had some defect of vision but did not realize that it was serious enough to need correction. However, they had him examined by an oculist and proper glasses fitted, and to the amazement of both parents and child he learned for the first time that people could actually distinguish the leaves on the trees.

We often see equally great transformations brought about by the removal of infected tonsils. These children who are examined as pre-school children are re-examined three times during their elementary school life and unfortunately many of the same defects are found in all these examinations. These children, in most cases, are in families which are not financially able to have the corrections made.

We also have a chance to check on some of these children again when they enter the University of Delaware, and we find that in this group practically all remediable defects have been corrected.

But in the examination of young men in the draft, many of them who had these defects through their pre-school and school life are found still to have them, often in an exaggerated form. This is particularly true of dental defects. It is obvious that there is something lacking in the care of the preschool child, especially in the correction of his defects.

In the first place these defects must be found before they can be corrected. Until they begin school there is no opportunity to contact all of them, and this is the first opportunity that public health workers have to attempt to find them. It does seem to me that if the physician, whether general practitioner or specialist, would, when he examines a child, suggest or even insist upon the necessity of having all remediable defects corrected, whether they have any bearing on the present illness or not, he would be well within the bounds of ethics and at the same time be doing his patient permanent good.

Another thing I would suggest is the need for clinics outside the city of Wilmington for the correction of eye, ear, nose and throat, and dental defects in cases able to pay a nominal fee or no fee at all.

CARE OF THE MOTHER AND CHILD: COOPERATION NOT COMPETITION

MARION HOTOPP, M. D., M. P. H.,*
Dover, Del.

The position of Delaware among the states with respect to its maternal and infant mortality rates is far from outstanding. Although there has been a definite decrease in the rates within the past few years, we have a long way to go before we can be proud of our results. Table I gives us an indication of where the problem lies.

TABLE I
Record of Infant and Martality by Counties

		1 :	9 4 0			
	Color		No. of Maternal Deaths	Mort.		Mort.
City of						
Wilmington	W.	1521	5	3.2	59	38.7
	C.	266	3	11.27	28	105.2
	Total	1787	8	4.5	87	48.7
New Castle County, inc.						
Wilmington	W.	2477	7	2.8	88	35.5
-	C.	377	5	13.2	30	79.5
	Total	2854	12	4.2	118	41.4
Kent						
County	W.	421	2	4.6	19	45.1
	C.	157	1	6.3	17	108.2
	Total	578	3	5.2	36	62.2
Sussex						
County	w.	722	6	8.3	44	60.9
	C.	199	3	15.07	19	95.4
	Total	921	9	9.8	63	68.4
State	W.	3620	15	4.2	151	42.1
	C.	733	9	12.3	66	90.0
	State	4353	24	5.5	217	49.8

*Rates per 1,000 live births. Rates do not include non-resident maternal and infant deaths, which are negligible.

We see at a glance that our maternal and infant mortality rate for the colored are very much higher than for the white population. Therefore little improvement can be expected until the prenatal and neonatal care in this group is considerably improved.

It is evident that our maternal and infant death rates for the white population are not particularly favorable when compared with the rates of states such as Oregon and Connecticut, which have excellent prenatal and infant care programs.

TABLE II

	White Population Delaware	Total Oregon	Population Connecticut
Maternal Mortality	Rate* 4.2	2.4	2.6
Infant Mortality Ra	te* 42.1	32.4	33.4
*Potes ner 1	000 live birthe		

^{*}Acting Director, Maternal and Child Health and Crippled Children's Services, Delaware State Board of

Some maternity hospitals are able to reduce their mortality rates for patients having adequate prenatal care to less than one-half of that of the most favorable state rates.

This problem concerns everyone in Delaware whether physician, layman, or public health worker. It is a challenge. Are we going to meet it?

That there should be malnutrition in a state so rich in food resources seems an anachronism. That we should have mortality rates indicative of poor medical care for our mothers and young babies in a state that has an abundance of well-trained physicians and good medical facilities also seems paradoxical. Probably in no other state are its leading citizens so interested in the health of the people of the state as a whole, or so willing to contribute substantially to its betterment. Why, then, are we not the state with the most favorable rates? And what can we do to gain this position?

Many of the people are not receiving the services they need because they cannot afford them, or they do not know where to go for them, or they do not recognize their own need. It is only by the cooperation of the physicians, the public health personnel, and the private agencies and individuals that these people and the services they need can be brought together. The activities of these groups must be well integrated so that they will be motivated by cooperation rather than competition, and so that there will be no reduplication of effort. Some excellent illustrations of this cooperation are mentioned in the sections devoted to the crippled children's program, the nutrition demonstration, and the dental hygiene program. The cooperation of lay groups, physicians and the Health Department is showing particularly fine results in the correction of defects in the follow-up of the Wilmington pre-school round-up this year. The fine type of cooperation demonstrated in these reports, when applied to all fields of maternal and child care, can make possible a marked improvement in the mortality rates of the mothers and children of Delaware.

The contributions of the Health Department are chiefly educational and preventive.

The education is carried on through home

visits of nurses, well-child conferences and prenatal clinics, mothers' classes and talks to lay groups, pamphlets, news releases, and films. Although the clinic services are primarily designed for families that cannot afford the services of a physician, the Health Department is glad to include the patients of doctors who request these services for them. Funds provided by the U. S. Children's Bureau make much of this program possible.

There is still a large mass of people in the necessitous group who have not been reached in this state. Physicians and lay groups can assist us in finding these people. It has been repeatedly demonstrated in other states that as the State Health Department services increase the request for services of the family physician increase because the people become more health conscious through education provided by health services.

The services for mothers and children by the state do not include therapy. However, lay groups can assist in finding means to pay for the services of physicians for people who cannot pay for such necessary services. There are benefit performances for many worthy causes. What could be more worthy than a "Maternity Service Fund" or a "Save a Child Fund" to cover these emergencies?

A recently developed service of the Health Department is the program for the care of the premature infant. Four incubators, one in each of the county health units and one in the central office, are available to physicians for premature or immature infants. Upon request, a nurse will also be available to help instruct the family in the special care of these infants. Literature on premature care is also provided. The consistent use of services such as these in other states has considerably reduced the mortality among infants born prematurely. In Chicago, where a very elaborate program of premature care has been in effect for several years, there has been a marked decrease in the death rate under one day, a feat which has never been accomplished before. In areas which have facilities comparable to those in Delaware, although the reduction has not been quite as dramatic, it has been very encouraging.

Physicians, lay groups, and the Health Department must cooperate in attacking the problems of better maternity care for our necessitous groups. Many of the mothers delivered by midwives have inadequate prenatal care. They cannot pay for the services of a physician. Physicians cannot be expected to care for all such cases without pay. If lay groups could participate by making delivery packages for the use of physicians on these cases and by supplying funds to pay physicians for delivery care in especially needy cases, the need of midwife services would gradually dwindle.

The needs are evident, the facilities can be be available; it remains for all of us to cooperate to better the care of the mother and child in Delaware.

PROGRESS IN NUTRITION IN DELAWARE

CHARLOTTE S. HURLEY, M. S.,* Dover, Del.

The recent nutrition conference in Washington and the increasing national interest in nutrition seem to be making Delaware physicians curious about local nutrition programs—what has been accomplished and what can be accomplished in the near future by the cooperation of health departments and physicians to improve the nutritional status of our own people.

One of the major concerns of the Washington conference was the nutrition education of physicians, dentists, public health workers, nurses and teachers so that those people who want to do nutrition teaching can match their enthusiasm with sound understanding.

In Delaware we have already made a start in professional education in nutrition. Last spring the University of Delaware and State College accredited the Board of Health nutritionist as an instructor of a two credit hour extension course in public health nutrition. Forty-one Delaware public health workers attended these classes.

It was not possible to accommodate several teachers who wished to attend these classes last year, but next semester the University of Delaware is planning to offer an extension course in nutrition especially

adapted to the needs of teachers. Many school units include food material. A teacher well informed about nutrition has ample opportunity to use that information.

The Delaware Dietetic Association has written to most Delaware organizations offering its services for the coming year. The medical societies might find the services of this organization valuable in exhibits or perhaps in a panel discussion composed of dietitians and physicians.

A wider use of the press has been frequently suggested to further the national nutrition program. In Delaware weekly news releases under the column heading "Food for Thought" are sent to all Delaware papers and to a request mailing list. Suggestions about these releases would be very much appreciated.

National attention is constantly turning to the problem of providing nourishing school lunches for all school children. In Delaware many agencies are responsible for expanding and improving our school lunch program. The State Board of Health has cooperated with the Department of Public Instruction, the Old Age Welfare Commission, the Extension Division of the University of Delaware, the Parent-Teacher Association, the Delaware Red Cross, the Anti-Tuberculosis Association, local service clubs, and mothers' groups in a combined effort to improve school lunches in Delaware.

The food supplied by the Surplus Marketing Administration and the labor supplied by National Youth Administration have made it possible for many schools to serve lunches to all children regardless of the ability to pay. Fifty-two per cent of all the schools in the state use surplus commodities to provide lunches for needy and malnourished children. If rural Delaware only is considered, the percentage of schools using surplus commodities would be much higher.

A canning project is now under way at State College to preserve summer surpluses to improve the nutritive value of next winter's colored rural school lunches. National Youth employees do the canning and they are instructed through the use of National Defense funds. Food to be canned comes from local gardens and the Surplus Marketing

^{*}Nutritionist, Delaware State Board of Health.

Administration. Contributions for jars and supplies have been given generously by the Anti-Tuberculosis Association, the Parent-Teacher Association, the Delaware Red Cross and interested individuals and community groups. Fifteen hundred quarts of fruits and vegetables have been canned already.

There are many programs needed which only medical groups can sponsor, for example, more hospital therapeutic diet clinics. The Food Clinic at the Johns Hopkins Hospital is an excellent example of such a clinic. Dispensary patients are referred by the physicians of all the clinics to specially trained dietitians who explain the prescribed diet to the patient and help him to translate it into nourishing food which he can afford. A food clinic does a double service. Special diets are often better followed, and instruction is given in budgeting and meal planning so that the result is better balanced meals for the whole family.

SERVICES FOR CRIPPLED CHILDREN IN DELAWARE

MARY M. KLAES, R. N.,*
Dover, Del.

The crippled children's program was started in Delaware in 1937. At the end of the first year there were 303 cases on the crippled children's register and on January 1st, 1941, there were 901 cases on the register. This register is maintained in compliance with the Federal Children's Bureau requirement. Physicians and hospitals have cooperated in keeping the register up-to-date by sending in the names of crippled persons under 21 years of age.

A cross index diagnosis file shows that, of this number, 70 have been diagnosed as post-poliomyelitic conditions, osteomyelitis, 19; tuberculosis of bones and joints, 26; cerebral palsy, 69; other birth paralysis, 21; cleft palate or harelip, 25; club foot, 52; congenital dislocation of hip, 11; spina bifida, 3; other congenital defects, 61; burn, 13; other injury, 23; rickets, 126; arthritis, 10; osteo-chondritis, 13; epiphyseolysis, 3; scoliosis, 65; torticollis, 8; flatfoot, 154; muscular

dystrop or atrophy, 14; all other definite diagnosis, 99; provisional diagnoses, 16.

Age groups are as follows: under 1 year, 16; 1-4 years, 181; 5-9 years, 202; 10-14 years, 247; 15-9 years, 192; 20 years, 22; age unknown, 41.

In 1940 there were 675 visits to the state crippled children's clinics. At the present time clinics are conducted in Seaford, Milford, and Dover. This clinic service is available to all physicians who wish to refer indigent patients. Referring physicians receive a report of the orthopedic consultants' findings of the initial and all subsequent examinations.

The Alfred I. duPont Institute of the Nemours Foundation cooperates closely with these clinics: the Foundation pays for prescribed appliances when parents are unable to do so. A staff physician of the Institute attends all state clinics and assists the orthopedic consultant. In return, the Crippled Children's Service makes the necessary investigation prior to admission of all children living in Delaware who are to be hospitalized at the Alfred I. duPont Institute of the Nemours Foundation. Follow-up service of clinic and discharged hospital patients is also given by the Crippled Children's Service. Once a year a special clinic for cerebral palsy patients is conducted in Wilmington, Dover, and Georgetown by the Crippled Children's Service. They are held in these locations for the convenience of the local physicians and are in charge of a well known specialist in the treatment of cerebral palsy.

It is the policy of the official agency to conduct an "in service" training program for staff nurses and dental hygienists. The orthopedic surgeons of the state have cooperated with that part of the program related to orthopedics by giving a short series of lectures.

In addition to the cooperation between the official agency and the physicians and hospitals, mention must be made of the cooperation between the various service clubs and the Crippled Children's Service. Local service clubs and the motor corps of the Red Cross provide transportation of crippled children to hospitals and clinics. Crippled

^{*}Nursing Consultant, Crippled Children's Service, Delaware State Board of Health.

children's personnel is available to the program committees of the service clubs.

Schools have made use of the clinic facilities by sending to the clinics groups of children with postural defects. The school nurse and athletic coach is present at the examination of these posture cases and plans for corrective exercise classes are made jointly by the school and Crippled Children's Service personnel.

In order to promote early diagnosis of acute anterior poliomyelitis the orthopedic consultant on the staff of the Crippled Children's Service is available to all physicians who are in need of such services for their indigent patients.

The cooperation of everyone involved has produced a service for crippled children in this state of which we can be proud. The program is founded upon this cooperation: no one of us could hope to accomplish alone what we have accomplished together.

DENTAL CARIES—A COMMUNITY PROBLEM

MARGARET H. JEFFREYS, R. D. H.,* Dover, Del.

In every city where young men have been examined for selective service, we hear the same story—fifteen per cent to forty per cent have been rejected because they did not have a sufficient number of teeth. This is infinitely higher than during the World War, when six per cent was recorded. This seems strange, since the percentage for other physical defects, other than hearing, is considerably lower. We may well question why this should be so.

Undoubtedly, a valid cause would be found should the condition merit further investigation. It may be due to poor nutrition. I do not believe that the standards for dental examinations have been raised, although that for medical examinations have been.

As a nation we are all one for national defense. All effort is directed toward increasing the efficiency of our man-power but in so doing the health and welfare of the youth of our country is not forgotten. Can we then, overlook the fact that dental health is

a most important factor in general health; that the body cannot be well-fed without good teeth to chew food; that badly decayed, infected teeth are a source of infection undermining the health of the individual?

Consider for a moment what the situation would be if Army regulations concerning defects were applied to our public schools. According to the reports of the Oral Hygiene Division for this past year, nearly seventy-five per cent would be disqualified. If we look at that figure in terms of general health we must realize that seventy-five per cent of our children are already physically handicapped.

Those of us who are doing school work know only too well the deplorable conditions that exist, and it has been our purpose to bring this matter more forcibly each year before the public. This we have done in every possible way. First, to the students themselves as the teeth were cleaned and examined; then to the parents through formal notification, followed by home visits when the case appeared urgent. As each classroom is completed the teachers are given a list of the conditions found in the case of each one of their students. They are urged to work with the students when the dental hygienist is not there and encourage good mouth hygiene as a part of their everyday living.

Knowing too well that children are often handicapped in how far they may proceed in their own homes because the parents are unenlightened, we have endeavored to meet with lay groups whenever possible. Not only is an effort made to stress the importance of dental care but further effort is made to have them obtain it. The success of this particular phase of the program is apparent as one reads "Signposts" the official publication of the State Parent-Teacher Association. In the last issue twenty-seven schools were listed as sponsoring projects to provide dental care for the children in their schools. They represented both white and negro schools. In a recent survey made by the dental hygienists, some of the schools reported that care had been provided with the aid of service clubs in the community, some with church groups, and a few with the

^{*}Director, Oral Hygiene, Delaware State Board of Health.

aid of the local board. Local dentists have been most liberal with their time and services. Transportation to the dentist which is often a problem in rural Delaware has been provided by interested persons in the community.

Further activities of the Board of Health dental hygienists include instruction to groups of expectant mothers, and mothers who come to the well-baby conferences, prophylaxes and examination for children in nursery schools, kindergartens, and the girls in the Industrial Schools at Claymont and Marshallton.

The educational work has been most effective in motivating desire among the people to secure dental attention, but most remarkable has been the effect on the children. Fear of the dentist has been one great factor influencing neglect, and that has been overcome to a large degree. Using instruments for examination and prophylaxis, actually sitting in the dental chair while different procedures were explained has prepared them for their first experience with the dentist, which will naturally be more pleasant for they know what to expect.

But one thing is lacking in the program in this state and that is better facilities for taking care of the indigent and borderline groups. Clinics for adults are available in Wilmington but for extraction only—clinics are held in some of the schools but there are not enough to take care of all. There is nothing for the adult in rural Delaware. Surely something can be done to secure the service that so many need.

THE PRESCHOOL FOLLOW-UP PROGRAM

GRACE MURRAY, R. N.,*
Wilmington, Del.

Only a few years ago the term preschool was a strange word to the average person. The preschool child has been outside of the ordinary limits of infant welfare work on the one hand, and of public school education on the other; the years from one to five have in a sense been neglected.

Shall we look at a typical child that is brought by a parent for examination at the spring preschool round-up? This little fellow goes up to the doctor and the nurse notices his shoulders sag forward, abdomen inclined to be large, mouth partly opened—apparently a mouth breather, tiny teeth are seen to have stains at the gum line, and caries is seen with the naked eye without the aid of a mirror.

The results of this round-up in Wilmington were amazing. Of the 569 children that were examined 471 were found to have defects. 399 children were found to have dental defects and were referred to their family dentist for examination and to carry out his instructions. 163 had tonsils that were in need of examination by the family doctor and he was to make the decision if removal were necessary. 32 seemed to have eye defects and 55 were more than 10% underweight.

What has been done to help these children to prepare for entrance to school?

The public health nurses and dental hygienists have made follow-up home visits to all the parents of the preschool children with defects in an effort to guide them to their family doctor.

The Wilmington Lions Club, through Mr. Thomas Mulrooney, principal of Bancroft School, has assisted indigent families with preschool dental corrections. Father Enright, of St. Mary's School, made arrangements through his church for dental care for the indigent children. The Parent-Teachers Association president of No. 20 School is attempting to make the preschool correction program a community project for their group. The Wilmington General Hospital set aside special days for tonsillectomies on children of the preschool group that could not have it done by the private doctor. The Memorial Hospital made arrangements to do tonsillectomies on a number of indigent cases immediately so that the children would have time to be built up following the operation. Many local physicians and dentists have been very generous with their time and patience in care for these children, whose parents were not able to pay full fees, but with this help it is felt they are going to be better prepared to help themselves.

130 parents have had the defects corrected

^{*}Nursing Supervisor, Wilmington and New Castle County, Delaware State Board of Health.

and other appointments have been scheduled so that it appears there will be more corrections made than ever reported in relation to the Wilmington program.

The importance of the health and strength of the children of our state particularly at this time when chaos reigns in so many nations of the world seems to be realized by the many persons and agencies working together on the correction program. Their response has proven that they feel this is their opportunity to share in protecting the health of boys and girls.

ACCIDENTAL DEATHS AS A CAUSE OF MORTALITY IN DELAWARE

CECIL A. MARSHALL, B. S.,*
Dover, Del.

The accidental mortality rate for Delaware in 1940 warrants emphasis on the fact that greater caution and safety should be a forethought in choosing the manner as to how we shall exercise our daily lives. Our rate is not the highest in the country but it is sufficiently high to review the cause and bring into consideration the facts that possibly might be effective in bringing about its reduction. The accidental mortality rate of 82.5 per 100,000 population ranks Delaware fifteenth from the top among the states whose rates range from 51 in Rhode Island to 105 in Wyoming, with the exception of Nevada which had a very high rate. Comparing the mean per cent of cause of deaths for the past five years with 1940 we find that accidental deaths has transferred positions with pneumonia. The mean per cent of total causes of death from 1935-1939 ranked accidental deaths in sixth place with a per cent of 6.4, and pneumonia, in fifth place with a per cent of 6.6. In 1940 accidental deaths took fifth place, with 6.7 per cent, pneumonia, the sixth place, with 4.8 per cent.

At the conclusion of this article a chart is presented to emphasize the major categories into which fall accidental fatalities. The four general classes are occupational, home, motor vehicle, and accidents which occur in public places other than those connected with motor vehicles. Those which do not fit into these groups are included in other acci-

dents. The occupational group includes all fatalities arising out of and in the course of gainful employment. The exception may be a domestic servant, which would be a home accident, or a person being involved in an accident of transportation which is ordinarily classified as a public accident. The occupational group comprised 6.8% of all accidental deaths. Five of the fifteen occupational deaths were connected with agriculture, two with construction, and five with trade.

The home accident group consists of those accidents occurring on the domestic premises except in the course of employment and to other than domestic servants. Falls are the greatest cause; followed by burns, of which there were 13 deaths. Sixty-four of the 220 accidental deaths were in this group, or 29 per cent. Falls in the home caused 65.6 per cent of all home deaths, and 81 per cent of them were of elderly people—those 65 years of age and older. From this figure it is selfevident that physical frailty is responsible for home fatalities in a large measure, and if were included the non-fatal accidents resulting in injury and temporary disability, we would find that the home ranks as one of the important possibilities for a hazard to consider in any accident prevention program. This seems paradoxical since we ordinarily consider our home a place of refuge and for all practical purposes the safest place on earth. For greater safety that rickety ladder, slippery floor, and narrow stairway all need some special care when they are to be used. A reduction in this category of home accidents might well greatly diminish the number of the next runner-up to the greatest cause of all accidental deaths-the motor vehicle.

In Delaware, for 1940, accident fatalities in which a motor vehicle was involved totaled 96, or 43.6 per cent of all accidental deaths, with a mortality rate of 36 per 100,000 population. Of these the great majority were due to vehicles colliding. Much can be said in regard to the prevention of auto accidents. The rules of safety are innumerable, as there are many variable factors in regard to automobiles and judgment of drivers. Too often accidents are a result of faulty judgment in

^{*}Statistician, Delaware State Board of Health.

operation rather than faulty mechanism of the vehicle. Scarcely too much emphasis can be laid on cautions and safety procedures for motor vehicle operation. However, the variations in the human element involved makes it impossible to get strict observance of established road regulations without adequate policing.

This problem is very apt to become more acute due to the motor vehicle population of this country. The Metropolitan Life Insurance Company predicts, from experience among their millions of industrial policy holders for the first six months of 1941, that there will be a 26 per cent rise in motor vehicle fatalities during the present year. This would mean 40,000 deaths for the year, as compared to 34,500 in 1940. The present rate of increase also predicts the same rise in Canada, although their rates run along a lower level.

The complexity of this problem can well be realized when we think of the fact that there were 32,025,000 motor vehicles registered in the United States in 1940. This is about 70 per cent of the world's registration. These are in operation among 131,890,000 people. The distribution of automobiles in our country is about one for each 4 individuals, while it is about one for each 140 in the rest of the world.

Public accidents other than motor vehicle are those other than occupational or home and a few included under the title other accidents. The public accident group was 16.3 per cent of the total—the greatest cause being accidental drowning, followed by falls in public places.

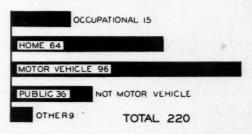
To move cautiously and safely as he who would avoid an accidental mishap, so must we move, in order that those unpleasant experiences of life that lie within our province to prevent may be prevented.

THE CAUSE OF ACCIDENTAL DEATHS, DELAWARE, 1940

Railway except motor vehicle	. 6
Motor vehicles	. 96
Water Transportation	. 1
Air Transportation	. 2
Agriculture and forestry	. 2

Absorption of poisonous gas	1
Accidental poisoning by solids and	0
liquids Conflagration	$\frac{3}{12}$
Accidental burns except conflagra-	
tion	7
Accidental mechanical suffocation	6
Accidental drowning	16
Injury by firearms	4
Accidental injury by fall or crushing	50
Excessive cold	3
Excessive heat	2
Electric current	1
Other accidents	8
/	
Total	20

CLASSIFICATION OF ACCIDENTAL DEATHS DELAWARE 1940



Cyclopropane for Anesthesia

The Council on Pharmacy and Chemistry reports that the Ohio Chemical and Manufacturing Company was first to submit a brand of cyclopropane for the consideration of the Council. In 1936 the Council voted to defer further consideration of the agent until more evidence of its usefulness was available. Subsequently, with the accumulation of the additional clinical and pharmacologic evidence considered in the further report of the Council on the gas published in 1939 without reference to particular brands, it was voted to accept the manufacturers' brand of cyclopropane provided it emphasize in its advertising that the product be employed only by those who are thoroughly familiar with the anesthetic agent and include an adequate description of the cardiac arrhythmias encountered with its use and a cautionary statement to avoid the simultaneous use of epinephrine or related substances. Accordingly, the Coun-

cil was about to recommend acceptance of the product when recent explosions with the gas caused the Council to hold acceptance in abevance pending investigation into the factors responsible for these accidents. further consideration of evidence submitted by the manufacturer and the reports in the literature, the Council decided that the explosion hazard of cyclopropane is not due to peculiarities of the gas itself but, as with other anesthetic agents, is directly attributable to accidental ignition, the conditions conducive to which may be avoided by observance of the necessary precautions. In view of this and the recent advances made toward the elimination of explosive anesthetic mixtures through the use of diluent gases, the Council voted to recognize evelopropane as an anesthetic agent if used with all necessary safeguards, and to accept the brand Cyclopropane for Anesthesia (Ohio Chemical & Mfg. Co.) provided advertising is further revised as indicated and the product is found to conform to the standards of the U.S. Pharmacopeia. (J. A. M. A., May 31, 1941, p. 2504)

Koch Cancer "Cure" and the Canadian Cancer Commission

The Bureau of Investigation of the American Medical Association is in receipt of a letter dated April 2 addressed to a physician in Texas, from the Koch Laboratories, Detroit, in which it is stated "The Canadian Cancer Commission appointed by the Ontario Government has compiled a splendid series of scientific proofs of the efficacy of the Koch treatment in curing advanced cancer." The letter goes on to state that this series is being offered in book form for one dollar. According to the Toronto Daily Star for March 19, the third report of the Ontario Cancer Commission adds nothing to its November report in which the Commission reported, with reference to Glyoxylide, sponsored by Dr. David Arnott of London, Ont., that it "is still hopeful that progress may be made . . . And thinks it desirable to defer any review of the evidence before it to date or the expression of any opinion until it either has the benefit of some laboratory study or it is finally successful in having an investigation made." (J. A. M. A., May 31, 1941, p. 2525)

For the local Treatment of Acute Anterior Urethritis



Acomplete technique of treatment and literature will be sent upon request

*Silver Picrate is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and soluble trituration for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

Wyeth, has a convincing record of effectiveness as a local treatment for acute anterior urethritis caused by Neisseria gonorrheae. An aqueous solution (0.5 percent) of silver picrate or water-soluble jelly (0.5 per-

cent) are employed in the treatment.

1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," Am. J. Syph., Gon. & Ven. Dis., 23, 201 (March), 1939.

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